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Policy Research on Rural Financial Markets in Low Income Countries

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I. Introduction

Over the past few years there has been a major increase in attention paid to rural financial markets (RFM's) in low income countries (LIC's).1/ In part, this is due to the recent large expansion in formal agricultural credit in many LIC's. Formal agricultural credit supplies in Latin America, for example, increased from approximately $2.5 thousand million (billion) U.S. dollars in 1960 to almost $8 thousand million (billion) U.S. dollars in 1974.2/ Aggregate estimates of formal rural credit supplies in all of the LIC's are not available. It is likely, however, that the overall supply is near $20 thousand million (billion) U.S. dollars. This rapid expansion in supply of agricultural credit has been accompanied by substantial increases in the numbers of facilities (banks, cooperatives, postal savings, etc.) which provide financial services in rural areas. Overall, formal financial activities are now a much more important part of the rural development picture than they were 15-20 years ago.

The increase in the amount of financial services in rural areas only partly explains the policy concerns given RFM's. Increasingly, RFM's are

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1/ Rural financial markets are defined as all financial credit and savings activities which take place in rural areas. Part of these activities are in formal institutions such as banks, development agencies, and cooperatives. A large number of informal transactions take place among friends, relatives, merchants and moneylenders.

2/ Estimates made by the author of year-end outstanding balances on formal agricultural loans.

called upon to play an active role in meeting development objectives. Many crop or enterprise promotion programs, for example, are spearheaded by credit. RFM's are also regularly required to assist in programs aimed at easing rural poverty; credit is often closely tied to land reform activities, small farmer development programs, and disaster relief. The stresses and strains which these developmental objectives place on RFM's are compounded by the tidal waves of inflation which have undermined all financial markets the past three years. In 1974 a number of LIC's lost at least half of the purchasing power from their RFM loan portfolios because of capital erosion due to inflation and loan repayment problems.

Research on RFM problems in LIC's has expanded the past few years. There is a surprisingly large number of isolated individuals around the world who are attempting to do policy research on RFM issues. In many LIC's, a number of research institutions have collected thousands of farm level questionnaires which include credit-use information. A large number of credit agencies have also assembled very large amounts of information on loans and borrowers. The ability to generate data in most cases, however, has exceeded the capacity to analyze the information for policy purposes. A major challenge during the next 10 years will be to increase the amount and quality of policy oriented research on rural financial markets.

II. Overview of Rural Financial Markets in Low Income Countries

One of the most important steps in research is the formulation of the questions or hypotheses which are to be answered or tested. These questions or hypotheses guide the researcher in identifying the types of data which must be collected. In some cases, there is little or no interaction among researchers and policy makers. As a result, the questions or hypotheses treated by the researcher may be far removed from policy makers concerns. In other cases, the questions or hypotheses are vague and too poorly specified to properly guide data collection. In both cases, huge amounts of data may be assembled which make little contribution to solving important policy questions. The piles of unanalyzed credit questionnaires found in many research institutions are mute testimony to faulty research questions and hypotheses. One of the first steps in improving research on RFM's, in my opinion, is to further clarify and improve the questions and hypotheses to be treated by the research. A clearer understanding of the structure and performance of RFM's in various LIC's could lead to formulation of better research questions. I, for one, am impressed by the similarity in RFM problems and policies in many LIC's. I also feel that a clearer understanding of the general patterns of growth in RFM's in other LIC's can help researchers design better research. A brief review of some of the common assumptions, policies, and problems found in RFM's around the world follows:

A. Common assumptions

Despite the diversity in the institutional make up of RFM's in low income countries, most policies are built on common assumptions. At least seven assumptions surface in almost any discussion of RFM's in LIC's: (1) There are serious shortages in overall supplies of agricultural credit in rural areas. (2) Most of the credit in rural areas is provided by informal credit sources. (3) Informal lenders extract large monopoly profits. (4) Most of the rural poor are not sophisticated enough to be able to use formal credit. Education, special economic inducements, and supervision are necessary to enable the rural poor to learn how to make productive use of credit. (5) Most decision makers in the formal financial system are very tradition-bound. This results in little lending to farmers in general and especially to small farmers. (6) There is almost no voluntary savings capacity in rural areas. Loanable funds, therefore, must flow into agriculture from other sectors. And (7) the demand for credit by the rural poor is very interest rate elastic. A small increase in interest rates will cause a sharp decrease in the demand for credit by this group. At the same time, it is assumed that the rural poor have a very interest inelastic supply schedule for voluntary financial savings. They are largely insensitive to changes in interest rates paid on financial deposits.

B. Common policies

A number of similar policies can be identified in RFM's in many LIC's. In part, these policies follow from these widely held assumptions. The most common policy found is fixed, concessional interest rates on credit for agriculture in general and especially for small farmers. Most LIC's have usury laws which fix a maximum interest rate which may be charged on commercial loans. In a number of countries 12 percent per year is the magic number. It is also common for interest rates on formal agricultural credit to be pegged at from 3-7 points below the so-called commercial ceiling. In a few cases, even lower interest rates are offered on small rural loans or on loans used to promote the use of specific farm input.

Policy makers in a large number of countries have placed, and in some cases are still placing, a good deal of emphasis on creating and extending financial systems in rural areas. As was mentioned earlier, this has often included formation of institutions aimed almost exclusively at the rural poor. Much less attention has been given to the problem of inducing existing financial institutions to expand into rural areas, and also of focusing more of their activities on the rural poor.

Formal RFM's in a number of LIC's are mainly retail outlets for government or international aid money channelled through central banks. Only in a few exceptional cases do RFM's mobilize significant amounts of household deposits to augment their loanable funds. In a number of cases, preferential rediscount rates are offered by central banks on loans made for socially desirable projects. Loan guarantee programs are also offered in a few cases to further increase the incentives for RFM's to make socially desirable loans.

C. Common problems

Given the common RFM policies followed in many LIC's, it should come as no surprise that many similar problems can be identified across countries. Despite the differences in institutional make up, these common policies, combined with serious inflationary pressure worldwide, appear to have resulted in strikingly similar problems. Some notion of recent inflationary pressures is necessary to fully understand why these problems have become so critical in many LIC's. From 1971 through 1974, the International Monitary Funds estimates that the average annual weighted rates of inflation in the LIC's were 10, 12, 21 and 29 percent respectively. These tidal waves of inflation crashing against rigidly fixed nominal interest rates in RFM's have resulted in negative real rates of interest being charged on almost all formal agricultural credit granted in LIC's during the past three years.3/ The purchasing power of the agricultural credit portfolios has been seriously eroded by these waves of inflation.

Because of concessional interest rates on agricultural credit, it has become increasingly difficult to induce RFM's to maintain, let alone increase, the proportion of total credit which goes to agriculture. Even more serious problems have been encountered in keeping loans to small farmers in RFM's portfolios. In only a few cases over the past few years has intensive political pressure caused RFM's to step up in real terms their lending to the rural poor.

3/ The nominal rate of interest is the rate specified in the loan contract. The real rate of interest is defined as the nominal rate of interest minus the average annual rate of inflation.

As might be expected, the drop in the real rates of interest combined with pessimistic expectations regarding future inflation, usually results in a shortening of the term structure of loans. That is, as real rates of interest drop, financial institutions attempt to direct a larger proportion of their loan portfolio into short-term lending. As a result, medium-term and long-term loans for agriculture tend to dry up.

Finally, fixed nominal interest rates on financial savings deposits combined with inflation result in even larger negative real rates of interest on financial savings. In many cases, these negative real rates of interest sharply limit the ability of RFM's to mobilize savings in rural areas. RFM's become increasingly dependent on funds from central banks, funds directly from the government, or funds from international aid agencies.

I strongly feel that researchers will formulate better questions and hypotheses when they begin to view problems in their own RFM as part of a general pattern which is clearly shown in other LIC's. More extensive interchanges among researchers and policy makers will also help identify those problems which are most deserving of research.

III. Data Requirements for RFM Research

Despite the fact that very large amounts of data are available on credit programs in LIC's, only a small part of this information is useful for policy research. By and large, financial institutions collect data on loans. Their main objective is to monitor the flows of payments and repayments.[4/] Typically, financial institutions do not collect much information about borrowers. It is next to impossible to use financial institution data to answer policy questions about farm credit use and household savings. Case studies or field surveys

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4/ Despite this objective, it is surprising how difficult it is in most countries to get a clear picture of loan repayment problems.

are usually necessary to provide this type of information. Unfortunately, many of the farm level credit-use studies carried out in LIC's to date are weak because credit-use measures are typically poorly defined.

A. Credit-use measures

Most farm level credit studies would be strengthened if the credit-use information collected was more carefully defined.5/ There are at least 6 different measures of farm level credit use which might be employed. A short description of each of these follows:

(1) The contractual value is the original face value of loans on which an outstanding balance is owed during the study period. It is the most commonly applied measure of farm credit use.

(2) The sum of loans in force is the debt outstanding during the study year. It includes the outstanding balance on loans received prior to the study period plus all loans received during the study period.

(3) The beginning balance measures the sum of unpaid balance on loans in force at the start of a study period.

(4) The ending balance measures the sum of loans in force at the end of the study period. It excludes any debt which has been liquidated prior to the end of the period.

(5) The new loans received is the contractual value of all loans acquired during the study period.

5/ Most of the material in this section was taken from Gerald I. Nehman and Dale W Adams, "Measuring Farm Level Credit Use: A Brazilian Example," Agricultural Finance Review, Vol. 36, 1975.

(6) The final measure might be termed credit availability. It is a measure which weights the amount of credit by its time availability. In this measure, one unit of money borrowed for 12 months is given the same weight as 12 units of money borrowed for 1 month.

Farm level studies often pursue a number of different objectives. In part, the credit-use measure adopted will depend on the objective. If the researcher is simply interested in finding out whether the farmer has experience with credit use, the contractual value figure is probably adequate. More detailed analysis, however, will likely require the use of one or a combination of the other credit-use measures.

B. Rural household saving studies

Very little is known about rural savings behavior in LIC's. At least two major reasons can be given for this. First, policies in most LIC's do not provide rural households with significant incentives nor opportunities to save in financial forms. Like a balloon which has not been inflated, rural savings capacities are not visible because they have not been stimulated.

Second, data requirements for the study of rural household savings are very demanding. Complete information on household income, household expenditures, and household investment-savings are needed for this analysis. For obvious reasons, these types of data are very hard to collect accurately through normal survey techniques. Income, savings, and investment data are all considered privileged information. Expenditure information is less sensitive, but often very difficult to accurately tabulate on a recall basis. Furthermore, because of dynamic conditions in rural areas, cross sectional data gives only a vague picture of household savings behavior. Conclusions about causes and effects related to household savings can only be drawn from accurate, detailed, time series household information.

IV. RFM Research Organization

Better research hypotheses, additional interchanges between policy makers and researchers, and improved data on credit use and savings activities at the farm-household level will strengthen policy research on RFM's. Analysis would be further strengthened by additional coordination, organization, and planning of future research. In most LIC's there are strong pressures on emerging evaluation-research groups to concentrate almost exclusively on immediate policy questions. Putting out policy fires, however, is not the best use of research capacity. Research is most useful to policy makers when problems are anticipated. Researchers have no unique ability to solve problems unless they have data which helps them explain, and thus predict events. Good data collection is a slow and difficult process. Typically, today's questions are answered with information carefully collected in the past. As a result, creation of adequate data bases will be a key element in organizing better policy research on RFM's.

Research would also be better organized if some broad outlines of potential research topics and priorities were developed. This might include organizing problems by at least three different dimensions: (1) The level of analysis needed to treat the problem, (2) the time priorities of the problem; immediate, intermediate, and long run, and (3) the agencies or individuals who have primary responsibility for analyzing the problem. A tentative research map for the RFM's in the Philippines, shown in Table 1, illustrates organization of problems into two of these dimensions.

The organization of RFM problems into time priorities probably needs no further explanation. Some additional comments on the three levels of analysis suggested in Table 1 are, however, needed.

TABLE 1. A TENTATIVE RESEARCH MAP ON RURAL FINANCIAL MARKETS IN THE PHILIPPINES BY TIME PRIORITIES AND LEVEL OF ANALYSIS

Level of Analysis	Time Priorities		
	Immediate	Intermediate	Long Run
Farm Firm Household	1. Loan defaults 2. Attitude toward repayment 3. Loan use	1. Worth of technical assistance 2. Economics of credit use 3. Credit sources 4. Credit terms 5. Loan leakage	1. Micro data bases 2. Worth of long run credit 3. Worth of lines of credit 4. Capital constraints 5. Form of savings 6. Savings capacities 7. Savings and consumer durables
The Financial Institution	1. Loan defaults 2. Payment procedures 3. Collection incentives 4. Loan collateral 5. Group lending	1. Employ extension agents? 2. Institutional efficiency 3. Bank supervision 4. Integrated agricultural finance 5. Bank control of marketing 6. Debt write-off 7. Paperwork and reporting 8. Compact farm experience	1. Data processing 2. Life insurance on loans 3. Life insurance on deposits
Financial Market and National Policy	1. New 25% requirement 2. Overall supply of agricultural credit 3. Coordinate research and evaluation	1. Number of rural banks 2. Interest rate policies 3. Reduce RFM subsidies 4. Loan guarantee program 5. Magnitude of subsidies to RFM's 6. Coordination of RFM's and overall development objectives	1. Savings mobilization 2. Long run structure of RFM's 3. Term structure of loans 4. Research network 5. Rediscounting policies 6. Loan demand and interest rate

A. <u>The firm household level</u>

A number of the most serious problems found in RFM's stem from difficulties at the farm-household level. The success or failure of an agricultural credit program importantly depends on the uses made by rural households of the additional liquidity provided by credit. Furthermore, the ability of RFM's to mobilize financial savings largely depends on how financial incentives affect savings capacities.

Despite a good deal of research done at the farm-household level in most LIC's, very little of this research has been used in policy making. By and large, policy makers have very vague ideas about the economics of credit use at the farm level. In most LIC's there is very little information available on the credit sources used by rural households, and even less information on how additional credit affects the farm-household operations.

B. <u>Financial institution level</u>

Most financial institutions do a good job of keeping on top of problems which they face. Questions of institutional efficiency, training of personnel, data management, and coordination of credit programs with other developmental activities, however, often need answers. As was indicated earlier, many of these institutions need to do additional work on processing loan repayment data so that a clear picture of repayment problems is presented.

C. <u>Financial market level</u>

In contrast to the analytic work being done on RFM issues at the farm level and the financial institution level, very little analysis is being carried out on overall RFM's and associated national policies. There is very little research underway which describes the structure, conduct or performance of RFM's in LIC's. Very little work has been done on things like estimating overall credit supply requirements of the agricultural sector. Even less has been done on the effects of distorted RFM prices (interest rates) on efficiency of resource allocation, income distributions, and capital formation. Almost nothing has been done on the effects of inflation upon RFM's. Likewise, very little has been done on the adequacy of institutional coverage of financial services in rural areas. It is unclear, for example, as to how many more financial facilities ought to be built to service some rural areas. It is also unclear as to which financial services informal markets ought to be allowed to provide.

V. Concluding Comments

The heavy emphasis currently being placed on agricultural credit programs in most LIC's provides excellent opportunities for policy oriented research. Far too many important RFM policy decisions are now made with little or no assistance from researchers. I continue to be impressed with the impact which small amounts of carefully done research can have on very important policy decisions. We hope that participants in this workshop will provide leadership in Asia for this important work.